

**TABLE I. EMISSION LIMITS**

Operations Type	Emission Limit <sup>*1</sup>	Pollution Control Technique
<b>Hard Chrome Plating Operations</b>		
Small, existing equipment <sup>2</sup>	0.03 mg/dscm <sup>*3</sup>	Packed bed scrubbers
Large, existing equipment and all new equipment	0.015 mg/dscm	Composite mesh-pad system
<b>Decorative Chrome Plating Operations</b>		
Chromic acid equipment	0.01 mg/dscm 45 dynes/cm <sup>*4</sup>	Fume suppressants Fume suppressants containing a wetting agent
Trivalent chromium equipment	No Emission Limit	
<b>Chrome Anodizing Operations</b>		
All equipment	0.01 mg/dscm 45 dynes/cm	Fume suppressants Fume suppressants containing a wetting agent

\*1 Emission Limits apply during tank operation.

\*2 Sources are small if they are less than the Maximum Cumulative Potential Rectifier Capacity (MCPRC) of 60 million amp-hour/year.

\*3 A limit expressed in mg/dscm is the concentration of chromium in milligrams (mg) per dry standard cubic meter (dscm) of exhaust air. The established method of measuring this is described in EPA's Test Methods 306 or 306A, "Determination of Chromium Emissions from Decorative and Hard Chromium Electroplating and Anodizing Operations."

\*4 A limit expressed in dynes/cm is a measurement of surface tension. The established method of measuring this is described in EPA's Test Method 306B, "Surface Tension Measurement and Recordkeeping for Tanks used at Decorative Chromium Electroplating and Anodizing Facilities."

**TABLE II - WORK PRACTICE STANDARDS**

Equipment	Work Practice Standard	Frequency
<i>Pollution Control Technique</i>		
Composite mesh-pad system	Visually inspect device to ensure there is proper drainage, no chromic acid build up on the pads, and no evidence of chemical attack on the structural integrity of the device.	Quarterly
	Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.	Quarterly
	Visibly inspect ductwork from tank or tanks to the control device to ensure there are no leaks.	Quarterly
	Perform washdown of the composite mesh-pads in accordance with manufacturers recommendations.	Per manufacturer
Packed-bed scrubber	Visually inspect device to ensure proper drainage, no chromic acid build up on the placed beds, and no evidence of chemical attack on the structural integrity of the device.	Quarterly
	Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.	Quarterly
	Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks.	Quarterly

	Add fresh makeup water to the top of the packed bed.	Whenever makeup is added
Packed-bed scrubber/ Composite mesh-pad system	Same as composite-mesh pad system.	
Fiber-bed mist eliminator <sup>*5</sup>	Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the devices.	Quarterly
	Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks.	Quarterly
	Perform washdown of fiber elements in accordance with manufacturers recommendations.	Per manufacturer
Other air pollution control device(s)	To be proposed by the business for approval.	
<i>Monitoring Equipment</i>		
Pitot tube	Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 °to ensure same zero reading is obtained. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.	Quarterly
Stalagmometer	Follow manufacturer recommendations.	

\*5 Work Practice Standards for the pollution control device installed upstream of the fiber-bed mist eliminator do not apply as long as the Work Practice Standards for the fiber-bed unit are followed.

**TABLE III - METHODS USED TO ESTABLISH OPERATING PARAMETER VALUES FOR AIR POLLUTION CONTROL SYSTEMS**

<b>Air Pollution Control Systems<sup>*6</sup></b>	<b>Monitored Parameter</b>	<b>Acceptable Operating Parameter Values</b>
Composite mesh pad system Packed-bed scrubber Fiber-bed mist eliminator	Pressure drop	1. Range of values from multiple performance tests, or 2. +/- 1 inch of water column about the average of three test runs measured during performance testing
Packed-bed scrubber	Velocity pressure	1. Range of values from multiple performance tests, or 2. +/- 10% about the average of three test runs measured during performance testing
Wetting agent	Surface tension	1. Use 45 dynes/cm, or 2. Maximum surface tension measured during performance testing
Foam blanket Fume suppressant	Foam blanket thickness	1. Use 1 inch foam blanket thickness, or 2. Minimum foam blanket thickness measured during performance testing

\*6 If you use a control system not specified here, such as a fiber-bed mist eliminator, contact your DNR air inspector for assistance in determining the appropriate operating parameters.

**TABLE IV. ONGOING MONITORING REQUIREMENTS**

<b>Pollution Control Technique</b>	<b>Monitored Parameter</b>	<b>Frequency</b>
Composite mesh-pad system	Pressure drop across system	Daily
Packed-bed scrubber	Pressure drop across system, <u>and</u> Velocity pressure at system inlet	Daily
Composite mesh-pad system/ Packed-bed scrubber	Pressure drop across the mesh-pad system	Daily
Fiber-bed mist eliminator	Pressure drop across the mist eliminator, <u>and</u> Pressure drop across the control device located upstream of the fiber bed	Daily
Wetting agent, <u>or</u> Wetting agent/foam blanket fume suppressants	Surface tension of bath	Every 4 hours <sup>*7,8</sup>
Foam blanket fume suppressants	Foam blanket thickness	Hourly <sup>*8,9</sup>
Fume suppressant/ Add-on control devise	As identified above	

\*7 If there are no exceedances of the maximum surface tension after 40 hours of operation, then the monitoring frequency can be decreased to every 8 hours. If there are no exceedances for the next 40 hours, then the frequency can be decreased to every 40 hours. If an exceedance occurs, then the initial monitoring schedule of every 4 hours must be resumed.

\*8 The initial schedule of every 4 hours must be resumed for every new tank solution.

\*9 If there are no exceedances of the minimum foam blanket thickness after 40 hours of operation, then the monitoring frequency can be decreased to every 4 hours. If there are no exceedances for the next 40 hours, then the frequency can be decreased to every 8 hours. If an exceedance occurs, then the initial monitoring schedule of every hour must be resumed.